

A NEW SUBTERRANEAN AMPHIPOD FROM JAPAN

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ONE FIGURE

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*Eucrangonyx japonicus*, n. sp. (Fig. 1).

Body slender, elongated, compressed and not carinate. Colour of preserved specimens white, without any trace of pigments. Eyes absent. Side-plates moderate in size, of which the fifth is excavated behind; sixth and seventh shallower than the preceding. Pleon segments 1-3, first somewhat shallower than the following; the lower posterior angle obtusely quadrate, posterior margin armed with five spines.

First antennæ slender, a little longer than the body; first joint of peduncle stoutest, slightly longer than the second, which is about twice as long as the third; flagellum nearly twice as long as peduncle, composed of twenty-five or twenty-seven articles; accessory flagellum two-jointed. Second antennæ about  $2/3$  as long as first antennæ; ultimate and penultimate joints of peduncle subequal, flagellum composed of eight or nine articles. First maxillæ: inner plate with three or four long setæ, the outer with seven rather strong spines; maxillary palp armed with four spines on the apex. Second maxillæ: both plates setose on the margins; inner plate provided with numerous minute setæ, four long plumose setæ and short spines along the apical margin. Mandibles: incisor process, lacinia mobilis well-developed, but molar process very small; palp very large and long, fringed with a series of long setæ. Maxillipeds: inner plate with numerous spines and setæ on the apical margin, the outer also provided with numerous spines and setæ on the apex and inner margin; palp large, elongated and setose.

Gnathopods 1 and 2 similar in form, but the former a little longer and stouter than the latter; fifth joint triangular in form and setose; sixth joint very large, broadest at the base, its long, oblique, convex palm fringed with a series of denticles and many setæ; this series goes

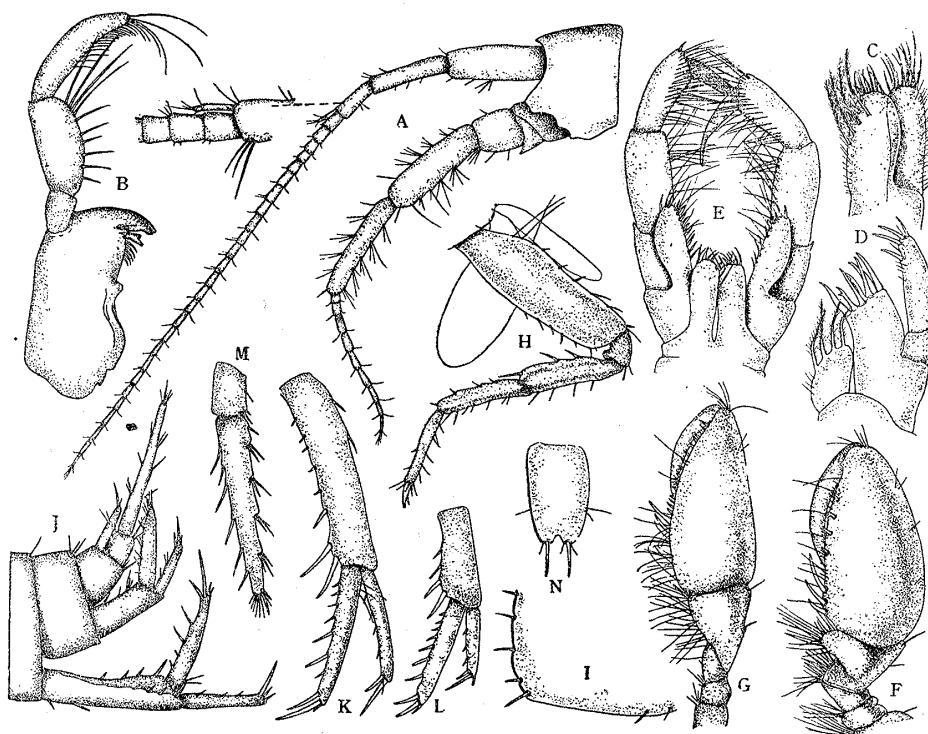


Fig. 1. *Eucrangonyx japonicus*, n. sp. A. Head, first and second antennæ,  $\times 12$ . B. Mandible,  $\times 20$ . C. Second maxilla,  $\times 42$ . D. First maxilla,  $\times 42$ . E. Maxilliped,  $\times 20$ . F and G. First and second gnathopods,  $\times 12$ . H. First pereiopod,  $\times 18$ . I. Postero-lateral corner of third pleon segment,  $\times 12$ . J. Uropods and telson,  $\times 12$ . K, L and M. First, second and third uropods,  $\times 12$ . N. Telson,  $\times 18$ .

beyond the point where the tip of large finger reaches, and two or three rather long spines near the base. Peraeopods 1 and 2 much shorter and more slender than the following pairs, which are successively longer and have long and broad second joint.

Uropods strongly spinose; first and second attain the apex of telson, but not extending beyond the third. First uropod largest and stoutest, peduncle a little longer than the inner ramus, outer ramus about  $5/6$  as long as the inner, both armed with two long spines on the apex. Second uropod: peduncle a little shorter than the inner ramus, the outer about  $2/3$  as long as the inner. Third uropod very long and slender; ramus single jointed, about 3.5 times as long

as peduncle, and armed on the apex with a large spine and a group of setæ. Telson about  $2/3$  as broad as long, tapering slightly, provided with one or two marginal setæ; its apical margin divided by a shallow median emargination into two lobes each surmounted with a long spine and one or two short setæ.

Length: body, 9 mm.; first antenna, 5.5 mm.

Two specimens ♂ ♂, all in the collection of the Ôtsu Hydrobiological Station.

*Locality.* Tôkyô, Honshû, Japan. January 26, 1930, collected by Mr. Jihei Ishikawa of the Aratama Water-work Company.

This blind amphipod was taken from a collecting pipe of the underground stream under the bed of the Tama River at Ikebukuro, north-western suburb of Tôkyô. With it was found a blind isopod which agrees very well with *Caecidothea akiyoshiensis*<sup>1</sup>, except the rami of the uropod are somewhat different in relative length from those in the original specimens. In the present material the outer ramus is nearly as long as the inner ramus.

In various features, especially in the structure of the mouth-parts and the uropods, *E. japonicus* reminds us of the genus *Pseudocrangonyx*<sup>2</sup> which is the only genus of blind amphipod hitherto reported from Japan. There is, however, an important difference between these two genera, namely the ramus of the third uropod is double-jointed in *Pseudocrangonyx*, while it is single-jointed in *Eucrangonyx*.

There are eight known species of *Eucrangonyx*, all distributed in the Holarctic region, chiefly in North America. From Asia only one species, *E. ermannii*, which has small round eyes was collected in warm springs of Kamchatka<sup>3</sup>. *E. japonicus* is, therefore, the second record of the genus from Eastern Asia, and, at the same time, a very interesting addition to the subterranean fauna of Japan.

<sup>1</sup> Uéno, M. 1927. "Notes on some subterranean isopods and amphipods of Japan."—Mem. Coll. Sci., Kyôto Imp. Univ., Ser. B, Vol. 3, p. 361.

<sup>2</sup> Akatsuka, K. and Komai, T. 1922. "Pseudocrangonyx, a new genus of subterranean amphipods from Japan."—Annot. Zool. Jap., Vol. 10, pp. 119-126; Uéno, loc., cit., p. 356.

<sup>3</sup> Stebbing, T. R. R. 1906. Das Tierreich, Lfg. 21, p. 373; Spandl, H. 1926. Die Tierwelt der unterirdischen Gewässer. Speläologische Monogr., XI. Wien. p. 75; Chappus, P. A. 1927. Die Tierwelt der unterirdischen Gewässer. Stuttgart. p. 77.